



Stormwater Guidelines – A New Approach Applied In Venice Lagoon

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ABSTRACT

In Italy law n. 192/2004 – requires something new for stormwater outfalls: for some kind of areas and activities, such as parking lots, streets, bridges, it is necessary to adopt a StormWater Plan for the management of rainwater flows, using the best management practices available.

The Government prepared some guidelines (published in July 2011) for the management and treatment of stormwater outfalls. These guidelines are also an useful tool for engineers, to help in drafting the StormWater Plans.

Guidelines define criteria to be followed to choose a BMP, and use integrated approach considering many factors. The main idea is that each site has different characteristics and that must be considered.

Before drafting the guidelines, the Water Authority performed comprehensive study to collect information, know-how and data. The study has been conducted both using field data (collecting samples in different areas, condition...) and literature data (collected worldwide). Also, particular attention has been put on different technologies and approached that can be used.

Once this preliminary phase was finished, the Guidelines has been written, with indication of regulatory aspects (which activities can be included in the application of the Law 192/2004), and which kind of data the Plans must include before submission to the Water Authority.

Briefly, the Plans must contain indication of all the data regarding the site, including hydro-geological study, indication of existing infrastructure and activities, type of contaminants that can be found, together with all the actions to be put in place for a proper management of stormwater runoff. Particular attention is also given to maintenance aspects and possibility of re-use of the stormwater, instead of discharging it.

In the guidelines a wide part is dedicated to description of various BMPs available on the market – both structural and non structural – with indication of benefits and limitations, investment and maintenance cost, and kind of pollutants it is expected to remove.

These guidelines introduced something new approach in Italy, and they can be considered as an instrument both for engineers, during design, and for regulators in the approval process.

KEYWORDS

BMP , Guidelines, Management, Stormwater, StormWater Plan, Treatment